

REMARKS

The Official Action of 8 March 2006 has been carefully considered and reconsideration of the application as amended is respectfully requested.

Claims 1-9 have been canceled and replaced with new claims 10-29. The recitations in new claims 10-18 correspond with recitations in original claims 1-9, with the anchoring feature of the prosthesis sleeve (see, e.g., specification at page 5, lines 5-22 and Figs. 9-11, 14 and 15) being claimed with means plus function terminology in accordance with the provisions of 35 USC 112, sixth paragraph.

New claims 19-29 have been added more completely to define the subject matter which Applicant regards as his invention. The recitations in claims 19-20 draw support, for example, from Figs. 9-11, 14 and 15 of the drawings. The recitations in claims 21-24 draw support, for example, from the specification as filed at page 4, lines 14-32; page 5, lines 5-22 and Figs. 9-11, 14 and 15 of the drawings. The recitations in claims 25-26 draw support, for example, from the specification at page 2, lines 14-20, page 5, lines 10-12 and Figs. 12, 14 and 15 of the drawings. The recitations in claims 25-29 draw support, for example, from Figs. 7 and 8 of the drawings.

Certain of the claims stand rejected under 35 USC 102(b) as allegedly being anticipated by Phillip. Other of the claims stand rejected under 35 USC 103(a) as allegedly

being unpatentable over Phillip in view of Nemoshkalov. Applicant respectfully traverses these rejections.

The claimed invention is based upon Applicant's discovery that the provision of a prosthesis sleeve with a suitable contour may be used to provide a **form fit** fixture or support of the prosthesis sleeve on the stump of an artificial limb that has an expansion or bulge. The Applicant has found that such arrangement is especially useful to take up torsion forces and tension forces.

The form fit of the claimed implant allows in general load transfer of all different kinds of loads (six degrees of freedom, in particular torsional moments, tension and compression forces, transversal forces and bending moments).

- a. Depending on the shape of the head of the anchoring part and its related shape for the extension/bulge in the socket, a selected subset of forces (degrees of freedom) or certain directions of loading (e.g. compression or tension, left or right rotation) can be transferred.
- b. This offers the opportunity to control the loading of the implant and its surrounding structure, e.g. soft-tissue and bone, to avoid overload of biological tissue - solely on biomechanical considerations independently of any anatomical structures, e.g. condyles.
- c. This offers the opportunity to "minimize" the sleeve by "burdening" the form fit in all kinds of loads. In practice the dimension of the sleeve and the amount of load on

the implant/soft-tissue is balanced to achieve a slim socket without overloading the implant/soft-tissue.

The primary reference cited by the Examiner, Phillip, does not show or suggest a prosthesis sleeve with a cavity or formation that can receive an expansion at the distal end of an amputated limb to establish a form fit. Moreover, Phillip does not show or suggest an expansion at the distal end of the limb in a way that a kind of curve, bulge or undercut is created.

Phillip discloses indeed an end part to be inserted into the femur bone. A spherical formed foot part is intended to provide a bigger surface to reduce the pressure onto the tissue of the amputees limb and to improve the feeling of the patient. The sleeve of the prosthesis is provided with a cushion to dampen the impact of the load during the walking. The implant is more or less round.

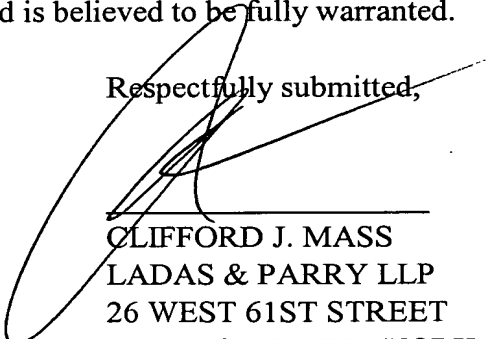
In short, Phillip is focused on the transfer and dissipation of pressure forces only, and does not show or suggest an expansion or bulge to provide a form fit fixture or support of a prosthesis onto a stump. In particular, Phillip does not show or suggest the claimed prosthesis sleeve having the recited bulge at an end thereof for receiving a bulge of an artificial limb in a form fit whereby to anchor the prosthesis sleeve to the limb. Since the cited secondary reference also does not show this claimed feature, the cited references cannot be considered to set forth even a *prima facie* case of anticipation or obviousness for the invention as now

defined in each of the claims.

With particular respect to claims 15 and 16, the claims recite a T-shaped head that makes it possible to create three projections by which torsional forces can be taken up. This feature is not shown or suggested in the cited art and the references cannot anticipate or render these claims obvious for this reason as well.

In view of the above, it is respectfully submitted that all rejections and objections of record have been overcome and that the application is now in allowable form. An early notice of allowance is earnestly solicited and is believed to be fully warranted.

Respectfully submitted,



CLIFFORD J. MASS
LADAS & PARRY LLP
26 WEST 61ST STREET
NEW YORK, NEW YORK 10023
REG. NO.30,086(212)708-1890